

# Car Trials

## Driving Tips & Techniques



### TRICKLING & BLASTING

#### TRICKLING

Trickle is the condition when there is no wheelspin; it does not imply any lack of power or speed. A high-speed trickle over a relatively flat surface is also known as Floating.

Application of the trickle is generally where the passage of the car does not change the surface and at all times where traction is not a problem. Typically this would be over grass, heather, tree roots or any natural growth and any hard ground, such as dried mud or rock provided there are no loose bits on top.

Trickle relies on the principle that it takes far less force to keep an object moving than it does to get it moving in the first place. The art in maintaining the trickle is in responding to the severity of the hill and the power & torque characteristics of the engine to anticipate and avoid the breaking of traction. Another factor is the gravitational transfer of weight from front to rear as the severity of the hill increases, reducing grip for front wheel drive cars just when it is needed! It takes courage and conviction to reduce power at the moment when, in normal driving, it would be increased to maintain speed. These conditions test the low rev torque of the car to the limit – that limit being stalling the engine, whence game over!

It should be apparent by now that it is essential to use first gear when trickling, so as to maximise engine speed at very slow car speeds. The prescribed methodology is to add speed when the going permits and to back off on the difficult or slippery parts, so you are not loading the tyre contact patch with torque just where the ground has the least grip. Thus you use the momentum gained from the speed to carry you over the problem area. All of this should have been pre-planned as described under Tackling a Section.

#### BLASTING

Blasting involves achieving the highest wheelspin rate the car can produce, which in some cars will involve using a gear other than first! The objective is to disperse the top surface so that we can drive on drier or grippier ground below. On mud, the wheelspin flings the mud out of the tyre tread, enabling it dig down to a better surface. Apart from mud, other surfaces dictating blasting is where there is loose matter (leaves, stones, etc). Finally, blasting can work when all else fails by the drying effect from the friction created and the extreme forces employed – but you do have to react quickly!

# TACKLING A SECTION

## ASSESSMENT

*Walk the hill – all of it, every time – and assess:*

- ROUTE memorise; after each round look out for changes – don't blindly follow old tracks!
- SURFACE grip, moisture, fresh grass or worn track, how it changes with each passing car or round
- UNEVEN AREAS bumps, rocks, severe banks, ruts, roots, trees, grounding points & other hazards, off-section dangers
- SLOPE where steeper or more flat, cross-camber
- EXIT ROUTES at various points of hill, especially if the conditions suggest you won't be able to prevent the car from sliding down the hill once the attempt has ceased.

## OBSERVATION

*Look how others do it – both successfully and unsuccessfully:*

- START position, angle, grip, best launch technique
- APPROACH trickle, float or blast on different parts of the section
- SPEED how fast or how slow depends on surface, bumps, ability, severity of corners
- LINE observe both front and rear wheel positions through difficult bits
- PASSENGER CONTRIBUTION where and where not to bounce
- MARKERS correlate difficult points to nearest marker
- MARSHALS ask for scores being achieved, difficult points, policy on 4 wheels out.

## STRATEGY

*If what others do works, it merits serious consideration, but it need not necessarily be the only way to crack the nut. If you fail to plan what's best for you, you plan to fail.*

- PLAN A exactly how you intend to tackle each part of section in advance
- PLAN B be prepared to change if what you are doing can obviously be improved by an alternative technique/line/etc. Do it before it is too late!

## DRIVING THE HILL

*The margin between success and failure is minute!*

- POSITION park away from start and approach in chosen gear
- PREPARATION when on line take a couple of seconds to focus fully on your plan before setting off; don't be distracted by noisy cars on other hills
- APPROACH really commit yourself to trickling, floating or blasting at your chosen points in the section
- LOOK AHEAD where possible, look several markers ahead

- **EXPECT THE UNEXPECTED**

several factors can upset your initial plan but it is the skill and speed with which you adapt which determines whether you are successful or not

- **SAFETY** always remain in control

- **SPORTSMANSHIP**

where the ground cuts up, avoid unnecessary damage and immediately cease your attempt when indicated by the marshal. Accept marshal's decisions with good grace.

## **EXITING THE HILL**

- **RETAIN CONTROL**

exit slowly; be aware of people, section markers and all hazards. Avoid getting sideways on steep slopes. Don't turn out of a section unless safe to do so.

## **MENTAL ATTITUDE**

- **FOCUS** on completing the section successfully, not on difficulties, in order to give yourself confidence
- **CONCENTRATE** fully on the task in hand
- **FORGET** silly errors made earlier and focus on next section
- **DON'T** let success on one hill or round go to your head, or you are bound to make unnecessary errors
- **NEVER** take any section for granted
- **GET IN THE "ZONE"** before the first hill and stay in it for the rest of the event!

## **GENERAL PREPARATION**

- **ARRIVE** at the event in good time
- **DON'T** be last through scrutineering and hold up the drivers' briefing
- **PARK** safely between sections, across the slope with handbrake applied, engine off and first gear selected
- **DON'T** obstruct other competitors
- **KEEP** to the allotted running order
- **BE READY** to start when it's your turn
- **PLEASE THANK** the marshals when exiting each section on the last round. Remember that without these volunteers there would be no motorsport!

***ENJOY YOUR SPORT!***

## USEFUL CONTACTS

### ***BTRDA***

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### ***BTRDA***

## **CAR TRIALS CHAMPIONSHIP**

The Championship runs from February through to October and comprises events run by experienced motor clubs around the country. Drivers are graded by previous successes into Gold, Silver & Bronze Championships, these being contested in addition to Class and Overall Positions on events. Championship Rules and Membership Forms are available from the BTRDA Contacts listed above and can be downloaded from our web site:

[www.btrda.com](http://www.btrda.com)

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